

Application/Control Number: 10/618,508

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1. (Currently Amended) A semiconductor device, comprising:

an insulated gate field effect transistor including

a first source/drain area of a second conductivity type formed in a semiconductor area of a first conductivity type;

a second source/drain area of the second conductivity type formed in the semiconductor area; and

a gate electrode structure formed on a gate insulating film on a channel area disposed between the first source/drain area and the second source/drain area, the gate insulating film includes a first gate insulating film formed on a first channel area portion and a second gate insulating film formed on a second channel area portion, the gate electrode structure including a first gate electrode and a second gate electrode electrically connected through a third gate electrode; wherein

a second type impurity concentration distribution in the first source/drain area is different from the second type impurity concentration distribution in the second source/drain area when viewed from the gate structure and a thickness of the first gate insulating film is different from a thickness of the second gate insulating film.

2. (Original) The semiconductor device according to claim 1, wherein:

a first type impurity concentration distribution in the first channel area portion is different from the first type impurity concentration distribution in the second channel area portion.

3. (Currently Amended) The semiconductor device according to claim 1, wherein:

the first gate electrode and the second gate electrode are formed in a side wall configuration with the first gate electrode and the second gate electrode being generally parallel with one another in a direction perpendicular to the gate insulating film.

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5. (Original) The semiconductor device according to claim 1, wherein:

an insulating film is formed between the first gate electrode and the second gate electrode.

6. (Previously Presented) The semiconductor device according to claim 1, wherein:

the first channel area portion is adjacent to the first source/drain area and the second channel area portion is adjacent to the second source/drain area wherein the second type impurity concentration in the first source/drain area is lower than the second type impurity concentration in the second source/drain area and the first gate insulating film is thicker than the second gate insulating film.

7. (Original) The semiconductor device according to claim 1, further including:

a capacitor electrically connected to the first source/drain area; and  
a bit line electrically connected to the second source/drain area wherein the second type impurity concentration in the first source/drain area is lower than the second type impurity concentration in the second source/drain area.

8. (Original) The semiconductor device according to claim 7, wherein:

the second source/drain area provides a common source/drain area for a pair of memory cells.